

WHAT IS CLAIMED IS:

1. A positive active material for a rechargeable lithium battery comprising:

a) lithium nickel manganese oxides; and

b) lithium manganese oxides,

wherein a weight ratio of the lithium manganese oxides to the lithium nickel manganese oxides is less than 1.

2. The positive active material of claim 1, wherein the lithium nickel manganese oxides is $\text{Li}_x\text{Ni}_{1-y}\text{Mn}_y\text{O}_{2+z}$ ($0 < x < 1.3$, and $0.1 \leq y \leq 0.5$), $0 \leq z \leq 0.5$).

3. The positive active material of claim 1 wherein the lithium manganese oxides is $\text{Li}_{1+x'}\text{Mn}_{2-x'}\text{O}_{4+z}$ ($0 \leq x' \leq 0.3$, and $0 \leq z \leq 0.5$).

4. The positive active material of claim 1 wherein the mixing ratio of the lithium nickel manganese oxides and lithium manganese oxides is 90 to 60 : 10 to 40 wt%.

5. A method of preparing a positive active material for a rechargeable lithium battery, comprising the steps of:

mixing lithium nickel cobalt oxide with lithium manganese oxide, the weight ratio of lithium manganese oxide to lithium nickel cobalt oxide being less than 1;

adding a binder to the mixture; and

heat-treating the resulting mixture at a low-temperature.

6. The method of claim 5 wherein the lithium nickel cobalt oxides

is $\text{Li}_x\text{Ni}_{1-y-z}\text{Co}_y\text{M}_z\text{O}_2$ (M is transition metal, $0 < x < 1.3$, $0 \leq z \leq 0.5$, and $y + z < 1$).

7. The method of claim 5 wherein the lithium manganese oxides is $\text{Li}_{1+x'}\text{Mn}_{2-x'}\text{O}_{4+z}$ ($0 \leq x' \leq 0.3$, $0 \leq z \leq 0.5$).

8. The method of claim 5 wherein the weight ratio of the lithium nickel cobalt oxides and lithium manganese oxides is 90 to 60 : 10 to 40 wt%.

9. The method of claim 5 wherein the heating step is performed at 200 to 500 °C.

10. A positive active material for a rechargeable lithium battery produced by mixing lithium nickel cobalt oxides with lithium manganese oxides, the weight ratio of lithium manganese oxides to lithium nickel cobalt oxides being less than 1;

adding a binder to the mixture; and

heat-treating the resulting mixture at a low-temperature.

LiNiCoO

LiMnO